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Developments in modelling of climate change-related migration

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Abstract:

Climatic variability and change is known to influence human migration patterns. Researchers increasingly see migration as one of a range of potential means by which populations may adapt to the future impacts of climate change. Modelling of climate change-related migration is a relatively new undertaking. This article provides a brief overview of current scholarly understanding of climate change-related migration processes, identifies recent developments and current challenges in modelling, and suggests opportunities for enhancing future modelling efforts. Given the lack of reliable global datasets on environmentally related migration, regional and sub-regional modelling of climate change effects on migration is where most developments are likely to emerge in the short-run. Such models, which can draw on a range of GIS-based and statistical approaches, at present make use of fairly general assumptions about migration behavior, and therefore best serve as gauges of potential trends and migration hotspots, and not as absolute predictors of future migrant numbers. Models will become increasingly sophisticated as scholarly understanding of underlying factors influencing migration behavior, such as risk perception, social networks, and labor market connections, is improved. Obtaining reliable data for use in such models will remain a significant challenge in coming years. International policymakers seeking to expand the predictive capacity of models are encouraged to use existing mechanisms such as the UN Framework Convention on Climate Change to develop protocols and mechanisms for collecting and sharing reliable data on climate-related population movements.

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Resource Description

Exposure :

weather or climate related pathway by which climate change affects health

Human Conflict/Displacement

Geographic Feature:

resource focuses on specific type of geography

General Geographical Feature

Geographic Location:

resource focuses on specific location

Global or Unspecified

Health Impact:

specification of health effect or disease related to climate change exposure

Health Outcome Unspecified

Mitigation/Adaptation:

mitigation or adaptation strategy is a focus of resource

Adaptation

Model/Methodology:

type of model used or methodology development is a focus of resource

Methodology

Resource Type:

format or standard characteristic of resource

Research Article

Timescale:

time period studied

Time Scale Unspecified